

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated February 3, 2006. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due consideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 10-15 are under consideration in this application. Claims 10-11 and 13-15 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim applicant's invention.

The claims and the specification are being amended to correct formal errors and/or to better recite or describe the features of the present invention as claimed. All the amendments to the claims are supported by the specification. Applicant hereby submits that no new matter is being introduced into the application through the submission of this response.

Formality Rejection

The preliminary amendment filed March 31, 2004 was objected to for introducing a reference to the claim to priority into an incorrect section of the specification. Applicants respectfully contend that the section was placed **before** Background of the Invention with the heading "Cross-Reference to Related Applications" on page 1 of the specification, i.e., right after the Title as required by the Examiner. As to the certified priority document, Applicants contend that a copy was received in the patent application such that there is no need to submit another copy in the current file. Applicants hereby request the Examiner to check the 2nd box of paragraph no. 12 on Form PTOL-326.

The declaration was objected to as being defective on the grounds that the declaration references an incorrect US Patent Application Number. Applicants respectfully contend that there is no need to submit a new copy of the declaration under MPEP 602.05(a).

"A continuation or divisional application filed under 37 CFR 1.53(b) (other than a continuation-in-part (CIP)) may be filed with a copy of the oath or declaration from the prior nonprovisional application. See 37 CFR 1.63(d)(1)(iv). A copy of an

oath or declaration from a prior application may be submitted with a continuation or divisional application even if the oath or declaration identifies the application number of the prior application.” MPEP 602.05(a)

The claims 10-15 were objected to for various informal errors that he pointed out. Claims 10-15 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite, and specifically for language that was found to be indefinite and confusing. As indicated, the claims are being amended as required by the Examiner.

Accordingly, the withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

Prior Art Rejections

Claims 10-15 were rejected under 35 U.S.C. §102(b) as being anticipated by US Patent No. 5,688,938 to Brown (hereinafter “Brown”). This rejection has been carefully considered, but is most respectfully traversed.

The plurality of amphibian oocytes of the invention, as now recited in claim 10, have mRNA respectively injected at *an identical depth* from a surface of each of the oocytes into a cytoplasm of each of the oocytes.

The invention recited in claim 13 is directed to a method for screening a sample, comprising the steps of injecting mRNA (e.g., a histamine receptor mRNA, p. 10, line 23), which encodes a protein (e.g., the histamine receptor) for initiating a biological interaction with said sample (e.g., histamine, p. 13, last line to p. 14, line 2), into a plurality of amphibian oocytes at *an identical depth* from a surface of each of the oocytes into a cytoplasm of each of the oocytes (“*at a constant depth*” p. 2, line 12; “*to provide expression efficiency*” p. 9, line 25); maintaining a membrane potential on each of the oocytes injected with the mRNA; adding a solution to each of the oocytes maintained with the membrane potential; and measuring an electric response of each of the oocytes after the step of adding thereby discriminating whether the solution containing said sample based on the electric response (for example, the solution containing sample 33 with histamine created the electric response 34, while the solution containing sample 35 without histamine did not create any electric response 36, p. 14, last paragraph; Fig. 6).

Applicants respectfully contend that none of the cited prior art references teaches or suggests that “mRNA is respectively injected at *an identical depth* from a surface of each of the oocytes into a cytoplasm of said each of the oocytes” as the invention.

In contrast, Brown merely injects mRNA into the vegetal pole (col. 51, lines 29-20) of the oocytes, without specifying at *an identical depth* from a surface of each of the oocytes into a cytoplasm of said each of the oocytes.

The invention injects mRNA into a plurality of amphibian oocytes at *an identical depth* from a surface of each of the oocytes into a cytoplasm of said each of the oocytes to achieve unexpected results or properties, for example, “to provide expression efficiency”. The presence of these unexpected properties is evidence of nonobviousness. MPEP§716.02(a).

“Presence of a property not possessed by the prior art is evidence of nonobviousness. In re Papesch, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) (rejection of claims to compound structurally similar to the prior art compound was reversed because claimed compound unexpectedly possessed anti-inflammatory properties not possessed by the prior art compound); Ex parte Thumm, 132 USPQ 66 (Bd. App. 1961) (Appellant showed that the claimed range of ethylene diamine was effective for the purpose of producing " 'regenerated cellulose consisting substantially entirely of skin' " whereas the prior art warned "this compound has 'practically no effect.' ").

Although “[t]he submission of evidence that a new product possesses unexpected properties does not necessarily require a conclusion that the claimed invention is nonobvious. *In re Payne*, 606 F.2d 303, 203 USPQ 245 (CCPA 1979). See the discussion of latent properties and additional advantages in MPEP § 2145,” the unexpected properties were unknown and non-inherent functions in view of Brown, since Brown does not inherently achieve the same results. In other words, these advantages would not flow naturally from following the teachings of Brown, since Brown fails to suggest injecting mRNA into a plurality of amphibian oocytes at *an identical depth* from a surface of each of the oocytes into a cytoplasm of said each of the oocytes.

Applicants further contend that the mere fact that one of skill in the art could rearrange Brown to meet the terms of the claims is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for one skilled in the art to provide the unexpected properties, such as to provide expression efficiency evidenced in the currently filed 132 declaration, without the benefit of appellant's specification, to make the necessary changes in the reference device. *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984). MPEP§2144.04 VI C.

Brown fails to teach or suggest each and every feature of the present invention as recited in independent claims 10 and 13 from which other claims depend. As such, the present invention as now claimed is distinguishable and thereby allowable over the prior art cited in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.

Double Patenting Rejection

Under the judicially-created doctrine of obviousness-type double-patenting, (1) claims 10-16 were rejected as being unpatentable in view of claims 14-16, 18, 21, 24 and 26-27 of US Patent No. 6,593,129, and (2) claims 10-12 were rejected unpatentable in view of claims 1-6 of US Patent No. 6,803,207, claims 1-5 of US Application No. 10/774,613, and claims 12-16 of US Application No. 10/876,551, respectively.

Regarding Patent No. 6,593,129, claims 14-16, 18, 21, 24 and 26-27 recite an apparatus having a tray with a plurality of wells or apertures having a size allowing free rotation of amphibian oocytes placed therein. Specifically, the wells have a maximum diameter of 105-150% of a diameter of the amphibian oocytes. On the other hand, the independent claims 10 and 13 of this application now recite a distinctive limitation of “mRNA respectively injected at *an identical depth* from a surface of each of the oocytes into a cytoplasm of each of the oocytes” that is absent from the relevant claims of the ‘129 patent. Accordingly, the withdrawal of this outstanding double patenting rejection is in order, and is therefore respectfully solicited.

Regarding U.S. Patent No. 6,803,207, its claims 1-6 are directed to a selection method for selecting, from a population of oocytes or eggs, a sub-population by using a resting membrane potential as a criterion. On the other hand, the independent claims 10 and 13 of this application now recite a distinctive limitation of “mRNA respectively injected at *an identical depth* from a surface of each of the oocytes into a cytoplasm of each of the oocytes” that is absent from the relevant claims of the ‘207 patent. Accordingly, the withdrawal of this outstanding double patenting rejection is in order, and is therefore respectfully solicited.

Regarding US Pat. App. No. 10/774,613, Applicant contacted the examiner on April 13, 2006, by a telephone call to indicate our intent to abandon the case. The double patenting rejection should thus become moot.

Regarding the co-pending US Pat. App. No. 10/876,551, Applicants respectfully contend that its claims 12-16 are directed to selecting oocytes based upon responses of a G protein-coupled receptor (GPCR) by measuring the current responses to a lysophosphatidic

acid receptor (LPA) stimulation. On the other hand, the independent claims 10 and 13 of this application now recite a distinctive limitation of “mRNA respectively injected at *an identical depth* from a surface of each of the oocytes into a cytoplasm of each of the oocytes” that is absent from the relevant claims of the ‘551 application. Accordingly, the withdrawal of this outstanding double patenting rejection is in order, and is therefore respectfully solicited.

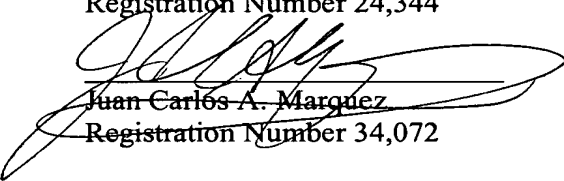
Conclusion

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art reference upon which the rejections in the Office Action rely, Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and telephone number indicated below.

Respectfully submitted,

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